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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/428,982	10/28/1999	DAVID C. ORLOWSKI	P3091	5377

7590

06/05/2003

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EXAMINER

PATEL, VISHAL A

ART UNIT PAPER NUMBER

3676

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/428,982

Applicant(s)

ORLOWSKI ET AL

Examiner

Vishal Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-2 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kakabaker et al, US Patent No. 4,743,034.

Kakabaker discloses a stator (23) affixed to a housing (17) and closely surrounding a shaft (13). The stator having a radial groove (groove created in part 23', in figure 5, by the walls 59', 72' and 57') formed therein with the walls of the groove extending between the housing and the shaft (see figure 5). The exterior surface of a first wall (59') of the groove facing the interior of the housing. An axial hole (75, the hole could be a slot or a groove, see column 5, lines 45-49) in the first wall at the lower extremity of the wall from the shaft connecting the groove to the

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housing. The radial groove is more than one-half the radial dimension of the stator, as much as claimed by the applicant.

Regarding claim 9: The stator having a plurality of radial grooves formed therein with the walls of the grooves extending between the shaft and the housing (groove 65, including wall 65 and the adjacent walls thereof).

3. Claims 1-6 and 9-14 18-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Orlowski, Patent No. 5,174,583.

Orlowski discloses a stator (12) affixed to a housing (50) and closely surrounding a shaft (100). The stator having a radial groove (groove 14 created from the wall 20 and adjacent walls thereof) formed therein with the walls of the groove extending between the housing and the shaft (see figure 1). The exterior surface of a first wall (wall having the groove 20) of the groove facing the interior of the housing. An axial hole (groove 20) in the first wall at the lower extremity of the wall from the shaft connecting the groove to the housing. The radial groove is more than one-half the radial dimension of the stator, as much as claimed by the applicant (see figure 2). The hole in the first wall of the stator includes a axially sloping surface connecting the radial groove to the housing (bottom of 20). The hole and the sloping surface are elongated (the hole has a depth and so does the sloping surface). The hole and the sloping are milled in the first wall. The inside diameter of the stator is proportional to the diameter of the shaft.

Regarding Claims 9-14: The stator having a plurality of radial grooves formed there in with the walls of the grooves extending between the housing and shaft (the two radial grooves 14).

Regarding Claims 18-26: A rotor (24) affixed to the shaft and rotating therewith interfacing with the stator (see figure 1). The interface between the rotor and the stator includes an ejection port

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(near 28, see figure 2) for ejecting of contaminants from the exterior without reaching the housing. The contaminants are expelled by the pumping action between the rotor and the stator, as much as claimed by the applicant (see figure 1). The rotor surrounds the stator and prohibits the entry or exit and subsequent contaminants (the elongated piece of stator received in the rotor at the front face near 24).

4. Claims 1-6 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Drago (US. 6,390,477).

Drago discloses an isolator mechanism for use with a housing having a bearing with lubricant in the housing and a shaft protruding through the housing (intended use), the isolator comprising:

- a stator affixed to the housing and closely surrounding the shaft (stator 40 closely surrounding the shaft);

- the stator having a radial groove (groove starting near wall 48 and extending to the stator) formed therein with the wall of the groove extending between the housing and the shaft;

- the exterior surface of a first wall of the groove facing the interior of the housing;

- an axial hole in the first wall at the lower extremity of the first wall from the shaft connecting the groove to the housing

- ~~a plurality of axial holes in the first wall at the extremity of the first wall from the shaft~~
connecting the groove to the housing (axial holes extending through the stator, between 42 and 44);

- the radial groove is more than one-half the radial dimension of the stator (figure 2);

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the hole in the first wall of the stator includes a axially sloping surface (the hole having a sloping surface opposite 74 and 50) connecting the radial groove (groove having wall 80) to the housing;

the hole and the sloping surface are elongated;

the inside diameter of the stator is proportional to the diameter of the shaft.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orlowski et al, Patent No. 5,174,583.

Orlowski discloses the claimed invention except for the proportion between the stator and the shaft is .005 inches per inch of shaft diameter. Discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Without the showing of some unexpected result. Since applicant has not shown some unexpected result the inclusion of this limitation is considered to be a matter of choice in design. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the proportion between the stator and the shaft to be .005 inches per inch of shaft diameter as a matter of design choice.

7. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orlowski and in view of Kakabaker.

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Orlowski discloses the invention substantially as claimed above but does not disclose the hole and the sloping surface are elongated circumferentially (meaning that they create a slot). Kakabaker et al disclose that a drain could be either a hole or a slot (column 5, lines 45-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the hole and the sloping surface of the drain of Orlowski to be elongated circumferentially as taught by Kakabaker, since they are considered to be art equivalent.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orlowski et al as applied to claim 1 above, and further in view of Fedorovich et al, Patent No. 5431,414.

Regarding claim 17: Orlowski et al disclose the invention substantially as claimed above but does not disclose a plurality of axial holes in the first wall. Fedorovich et al disclose that an axial hole in a first wall (figure 2) or a plurality of axial holes in a first wall (figure 8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the axial hole of Orlowski to be a plurality of axial holes as taught Fedorovich, since there are considered to be art equivalent.

Response to Arguments

9. Applicant's arguments filed 1/16/03 have been fully considered but they are not persuasive.

Applicants argument that Kakabaker's does not disclose a stator closely surrounding the shaft is not persuasive because the stator (23) is closely surrounding the shaft (13). Furthermore stator portion near 33' is closely surrounding the shaft.

Applicants' argument that Orlowski's does not disclose a stator closely surrounding the shaft is not persuasive because the stator portion near 20 is closely surrounding the shaft.

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Applicants' argument of inoperability if holes were adjacent the shaft precludes the combination is not persuasive, since Kakabaker disclose both holes and slots that are connected to groove or cavity to collect debris and lubricant.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is (703) 308-8495. The examiner can normally be reached on Monday through Friday from 7:30 PM to 4:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight, can be reached on (703) 309-3179.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. Technology Center 3600 Customer Service is available at 703-308-1113. General Customer Service numbers are at 800-786-9199 or 703-308-9000. Fax Customer Service is available at 703-872-9325.

Any response to this action should be mailed to:

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Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: 703-872-9326, for formal communications for entry before Final action: or,
703-872-9327, for formal communications for entry after Final action.

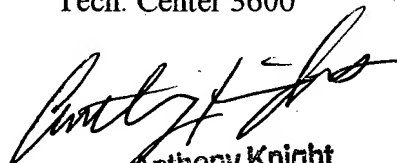
For informal or draft communications, please label "PROPOSED" or "DRAFT" and fax to:
703-746-3814.

Hand-delivered responses should be brought to Crystal Park Five, 2451 Crystal Drive,
Arlington, Virginia, Seventh Floor (Receptionist suite adjacent to the elevator lobby).

VP

March 13, 2003

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